Resource, Reliability and Environmental Concerns of Aging Power Plant Operations and Retirements

California Energy Commission

APPENDIX B Expected Additions and Retirements

Appendix B: Projected Additions and Retirements, 2005-2008

Developer	ISO Zone/Control Area	Fuel	Dependable Capacity			
			2005 (1)	2006	2007	2008
So Cal PPA	LADWP	Natural gas	328			
LADWP	LADWP	Natural gas	33			16
LADWP	LADWP	Wind	29			
Sacramento MUD	SMUD	Natural gas	500			
Silcon Valley Power	NP15	Natural gas	147			
Kings River Conservation Dist	ZP26	Natural gas	97			
City of Riverside	SP15	Natural gas	96			
RAMCO	SP15	Natural gas	45			
Calpine	NP15	Natural gas		600		
City of Vernon	SP15	Natural gas	134			
Modesto Irrigation District	NP15	Natural gas	95			
Calpine	SP15	Natural gas	250			
Calpine	SP15	Natural gas		500		
Turlock ID	NP15	Natural gas		250		
City of San Francisco	NP15	Natural gas		180		
SMUD	SMUD	Wind		18		
Envirepel	SP15	Biomass		40		
Edison Mission Energy	SP15	Natural gas		1056		
Sempra Energy	SP15	Natural gas		546		
City of Roseville	NP15	Natural gas			160	
CalEnergy	IID	Geothermal			185	
Calpine	SP15	Natural gas				510
Imperial Irrigation District	IID	Natural gas				37
			1754	3190	345	563
Known Retirements Owner Mohave (9) So Cal Edison / LADWP	ISO Zone/Control Area	Fuel	Dependable Capacity			
			2005		2007	2008
PG&E	NP15	Natural gas				
			1751		215	563
	So Cal PPA LADWP LADWP Sacramento MUD Silcon Valley Power Kings River Conservation Dist City of Riverside RAMCO Calpine City of Vernon Modesto Irrigation District Calpine Turlock ID City of San Francisco SMUD Envirepel Edison Mission Energy Sempra Energy Calpine Calpine Calenergy Calpine Calpine City of Roseville Calenergy Calpine Imperial Irrigation District	So Cal PPA LADWP LADWP LADWP LADWP LADWP Sacramento MUD Silcon Valley Power Kings River Conservation Dist City of Riverside RAMCO SP15 Calpine NP15 City of Vernon Modesto Irrigation District Calpine SP15 City of San Francisco NP15 SMUD SMUD SMUD SMUD SMUD SMUD SMUD SMUD	So Cal PPA LADWP LADWP LADWP Natural gas LADWP LADWP Natural gas LADWP LADWP Natural gas LADWP Natural gas Natural gas Silcon Valley Power NP15 Natural gas Kings River Conservation Dist City of Riverside SP15 Natural gas RAMCO SP15 Natural gas Calpine NP15 Natural gas Calpine NP15 Natural gas Calpine SP15 Natural gas SMUD SMUD SMUD Wind Envirepel SP15 Sempra Energy SP15 Natural gas Calenergy SP15 Natural gas IID Geothermal Calpine SP15 Natural gas Imperial Irrigation District IID Natural gas Imperial Irrigation District IID Natural gas Fuel So Cal Edison / LADWP SP15 Coal	So Cal PPA	So Cal PPA	So Cal PPA

- (1) On line as of August 1; does not include renewables which may come on line in response to RPS solicitations, estimated at 300 800 MW during 2005 2008
- (2) 1,175 MW of repowered capacity replacing 1,126 MW of aging capacity. Haynes 3 & 4 repowering (2005) 575 MW replacing 542 MW; Haynes 5 & 6 repowering (2008) 600 MW replacing 584 MW
- (3) Dependable capacity of wind rated at 24% of nameplate
- (4) Long-term contract with SDG&E
- (5) Pursuant to agreement with DWR; expected on line 8/1/05
- (6) 85 MW of new capacity replacing 48 MW of aging capacity
- (7) Operating hours limited until additional offsets obtained, but should generate at full output during peak.
- (8) 20-year contract with Imperial Irrigation District for 177 MW
- (9) Share of facility owned by California utilities